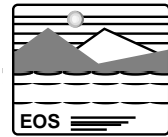


# **Lessons Learned on Coding Practices for Science Software**

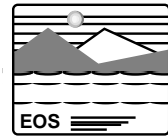
**EOSDIS Technology Transfer Workshop  
November 13-17, 1995**

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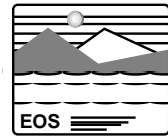
**NASA/Goddard Space Flight Center**



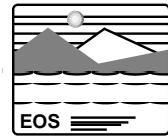
- **To develop a set of suggested software practices**
  - **based on the lessons learned from other NASA and government development efforts**
  - **which promote life cycle costs**
  - **for science software developers**
    - **to ease integration with ECS**
    - **to aid execution efficiency within the ECS environment**
- **To organize the document to accomodate multiple points of view of the readers**
  - **software goals**
  - **software practices**
  - **lessons learned**



- **Gather lessons learned in science software integration from other NASA and government projects.**
- **Gather lessons learned in software porting of C and Fortran code under Unix from several sources.**
- **Develop suggested programming practices which reflect the gathered lessons learned. Show traceability.**
- **Specify which practices are reflected in the EOSDIS Standards and Guidelines.**
- **Categorize and organize the suggested practices in prioritized terms of software goals such as portability, maintainability, useability, reuseability, and adaptability.**
- **Survey COTS and other tools which support the resulting suggested programming practices.**
- **Present initial results as a white paper. Convert white paper to hypertext format for community availability.**



- **White paper was delivered to ESDIS 9/95.**
- **Final ESDIS review is nearly complete.**
- **Hypertext version has been developed.**



- **Incorporate final ESDIS comments into both the white paper and hypertext versions.**
- **Announce document availability to the community of science software developers by December 31, 1995.**
- **Encourage user feedback to ensure a living document.**